

SESLHD PROCEDURE

Anticoagulation with Intravenous Heparin Sodium Infusion

SESLHDPR/402

APPENDIX A – Standard Bleeding Risk Protocol ¹

IV HEPARIN STANDARD BLEEDING RISK PROTOCOL (i.e. VTE / ATE/ AF, prosthetic heart valves & Other Conditions)	STANDARD RISK PROTOCOL
<p>Initial IV bolus dosage:</p> <ul style="list-style-type: none"> Use Heparin Sodium 5,000 unit in 5 mL ampoules/concentration Administer bolus up to the maximum dose of 5,000 units based on 80 units /kg (calculated below) unless AMO orders a HIGHER weight based bolus <ul style="list-style-type: none"> For acute thrombosis a higher weight based bolus may be required, calculated below. Seek specialist haematology advice for this patient cohort There may be circumstances where the bolus dose is omitted, e.g. patients transitioning from another anticoagulant agent or a delayed onset of anticoagulant effect is required No bolus should be administered for neurosurgical patients unless requested by Attending Neurologist/ Neurosurgeon with guidance from a Haematology consultant 	

Standard bolus doses		Standard bolus doses	
WEIGHT (kg)	BOLUS (Units)	WEIGHT (kg)	BOLUS (Units)
40	3000	55	4500
45	3500	60	5000
50	4000	More than 60	5000 (Maximum dose)

Higher weight-based bolus doses (if required, in consultation with haematology)			
WEIGHT (kg)	Higher Weight based BOLUS (Units)	WEIGHT (kg)	Higher Weight based BOLUS (Units)
70	5500	125	10,000
75	6000	130	10,500
80	6500	135	11,000
85	7000	140	11,000
90	7000	145	11,500
95	7500	150	12,000
100	8000	155	12,500
105	8500	160	13,000
110	9000	165	13,000
115	9000	170	13,500
120	9500		

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Infusion Initiation Protocol:

- Use Premixed Solution of Heparin Sodium 25,000 units in 250mL Sodium Chloride 0.9% (100 units per mL)
- **Initial infusion rate based on 18 units/kg/hr**, rounded to nearest 1 mL per hour (calculated below)

WEIGHT (kg)	Units per Hour	INFUSION STARTING RATE (mL/hr)	WEIGHT (kg)	Units per Hour	INFUSION STARTING RATE (mL/hr)	WEIGHT (kg)	Units per Hour	INFUSION STARTING RATE (mL/hr)
40	720	7	85	1530	15	130	2340	23
45	810	8	90	1620	16	135	2430	24
50	900	9	95	1710	17	140	2520	25
55	990	10	100	1800	18	145	2610	26
60	1080	11	105	1890	19	150	2700	27
65	1170	12	110	1980	20	155	2790	28
70	1260	13	115	2070	21	160	2880	29
75	1350	14	120	2160	22	165	2970	30
80	1440	14	125	2250	23	170	3060	31

IV HEPARIN ADJUSTMENT NOMOGRAM (adjust infusion rate according to the aPTT)				
aPTT (seconds)	Bolus Dose	Stop Infusion	IV Rate Change (mL/hr)	Repeat aPTT
Less than 40	5,000 units	No	<ul style="list-style-type: none"> • Increase rate by 1 mL/hr from current rate 	4-6 hours
40 to 44.9	Nil	No	<ul style="list-style-type: none"> • Increase rate by 1 mL/hr from current rate 	4-6 Hours
45 to 90	Therapeutic Range No change from current rate			<ul style="list-style-type: none"> • Repeat at 6 Hours • After 2 consecutive therapeutic aPTTs, check aPTT in 24 hours • Daily aPTT while results are within therapeutic range
90.1 to 95	Nil	No	<ul style="list-style-type: none"> • Decrease rate by 1 mL/hr from current rate 	4-6 hours
95.1 to 105	Nil	No	<ul style="list-style-type: none"> • Decrease rate by 2 mL/hr from current rate 	4-6 hours
Greater than 105	Nil	<ul style="list-style-type: none"> • Stop for 90 minutes • MO to assess patient for bleeding 	<ul style="list-style-type: none"> • Restart infusion after <u>90 minutes</u> & reduce previous rate by 2 mL/hr 	4-6 hours after recommencing infusion

STANDARD RISK PROTOCOL